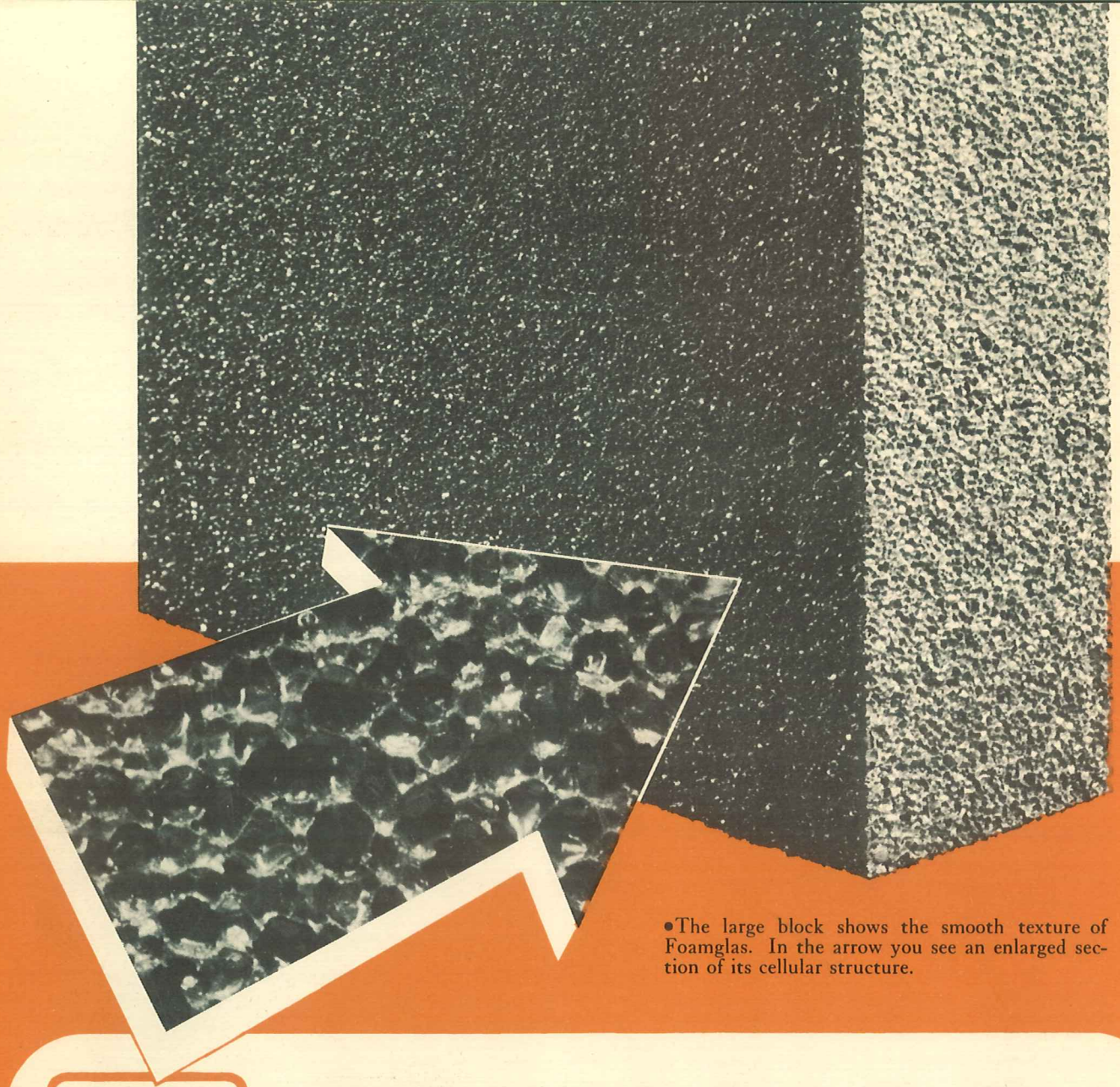


•The large block shows the smooth texture of Foamglas. In the arrow you see an enlarged section of its cellular structure.

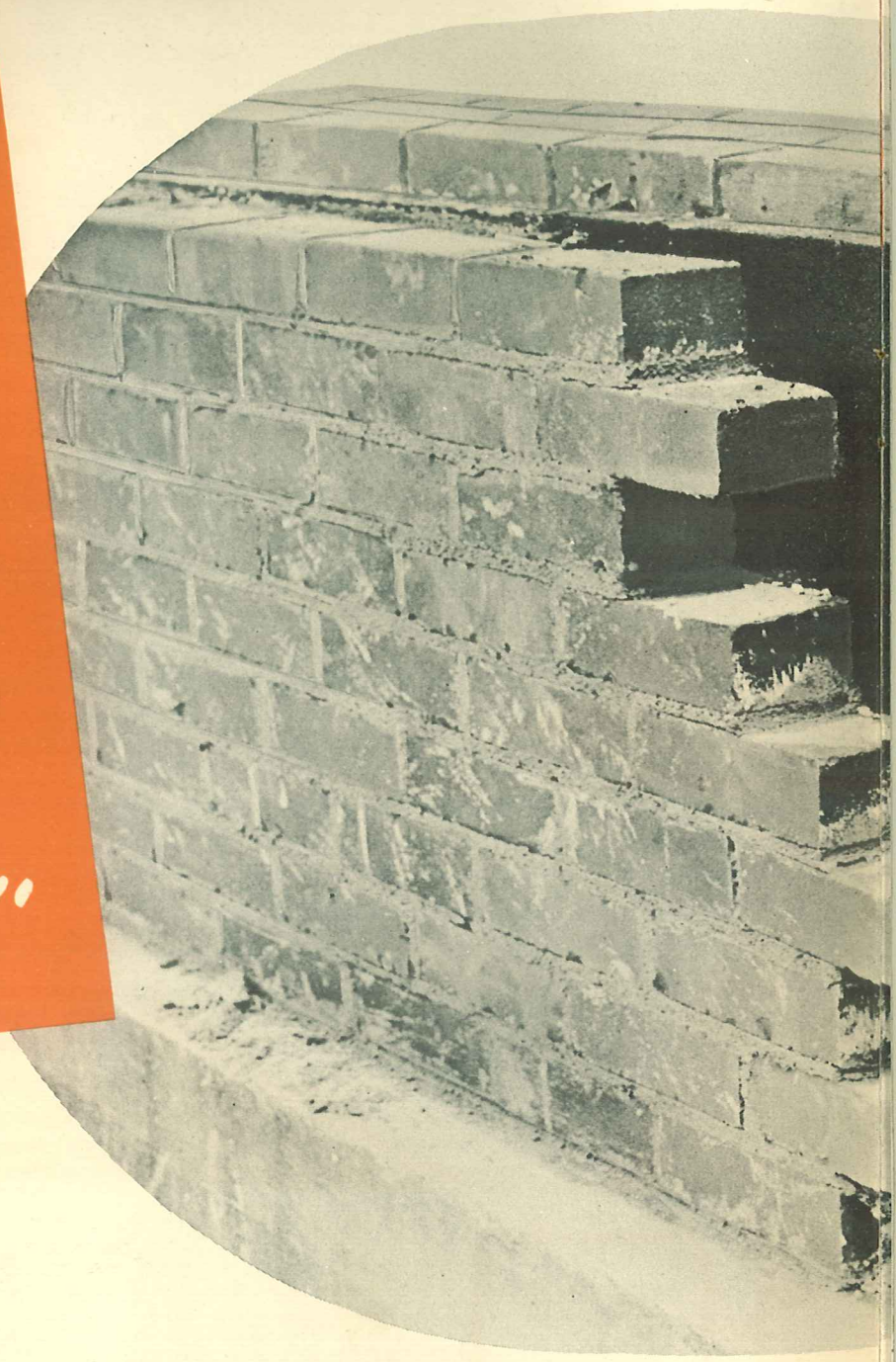
PC FOAMGLAS *CORE WALL* INSULATION

PITTSBURGH CORNING CORPORATION

PC FOAMGLAS

is insulation vapor-seal water-stop

all in one...



● When problems of temperature control or condensation arise in connection with building construction, you will find it well worth while to investigate PC Foamglas . . . the practical insulating material for core wall construction.

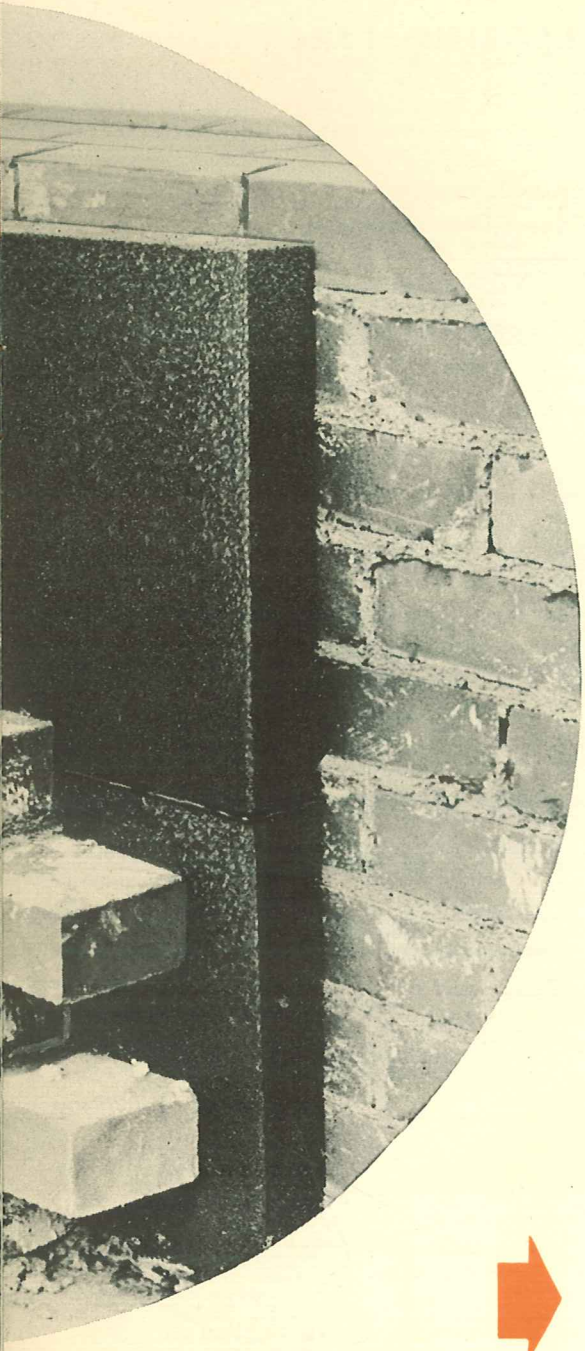
This material, composed of countless glass cells containing sealed-in air, is impervious to all common acid atmospheres, to fumes, vapors, moisture . . . common causes of deterioration in other insulating materials. Foamglas is insulation, vapor-seal and water-stop, combined in a single product. It will not shrink, swell, warp or rot. It is verminproof and fireproof. When installed according to our specifications, for recommended applications, it retains its original insulating value permanently.

PC Foamglas may be used as core wall insulation in connection with all types of masonry and concrete building construction, with whatever type of tile, block or brick facing you desire.

Blocks of Foamglas will support many times their own weight without danger of cracking or crushing. They cannot settle, pack down, or absorb moisture. In consequence, Foamglas eliminates expensive repairs and replacements often necessitated by deterioration of other insulating materials.

This booklet deals with several basic methods of installing PC Foamglas as the core of insulated walls. The information it contains should prove of special interest to architects and engineers who are confronted with temperature and humidity control problems.

PC Foamglas can also be used in Floors and Roofs, and for Processing Equipment. Detailed information is available for such installations.



PROPERTIES OF PC FOAMGLAS INSULATION

Absorption.....0
Adsorption (water).....005 lbs. per sq. ft. of surface area
Capillarity.....0
Coefficient of Expansion.....0000045 (inches, feet, etc.) per °F. temperature change
Composition.....A true glass—completely inorganic
Compressive Strength.....150 lbs. per sq. in.
K (Conductivity at 50°F. Mean Temp.).....0.40 B.t.u./Hr./Sq.Ft./°F./In.
Moisture Vapor Transmission.....0 (impervious)
Weight.....10.0 lbs. per cu. ft.

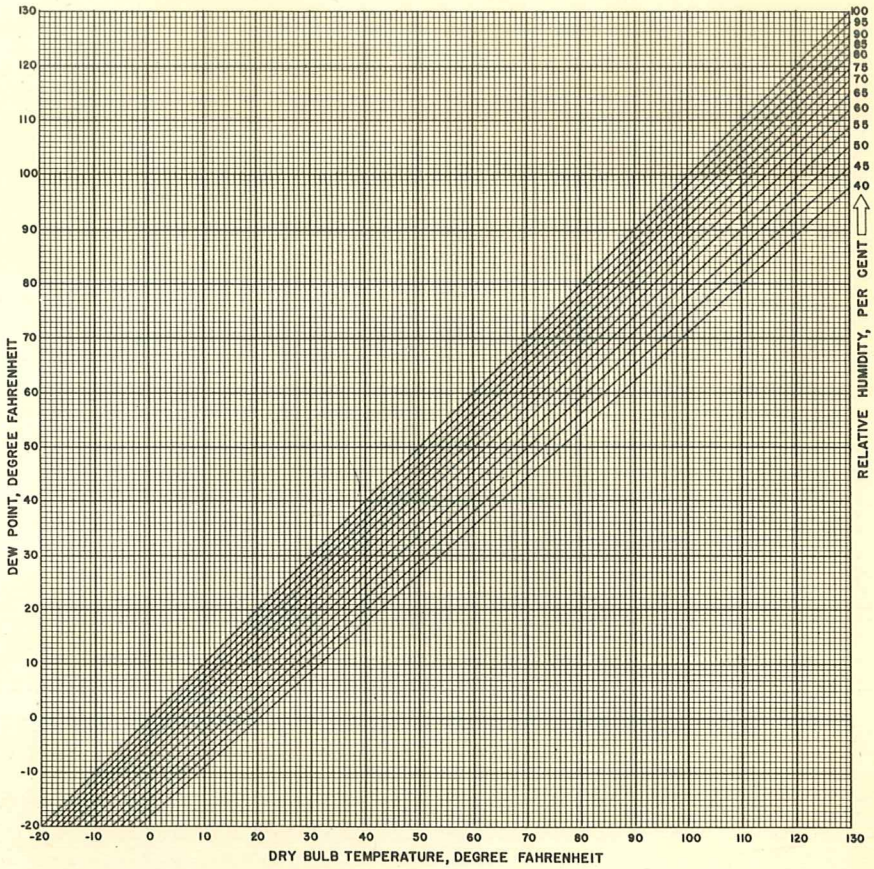
NOTE: Values are average for design purposes based on the weight of 10 lbs. per cu. ft. Weight varies from 9 to 11 lbs. per cu. ft.

SIZES AND PACKING

Glass Size	Pieces per Carton	Sq. Ft. per Carton	Approximate Weight per Carton
12 x 18 x 2	12	18	32.5 lbs.
12 x 18 x 3	8	12	32.5 lbs.
12 x 18 x 4	6	9	33.0 lbs.
12 x 18 x 5	6	9	40.5 lbs.

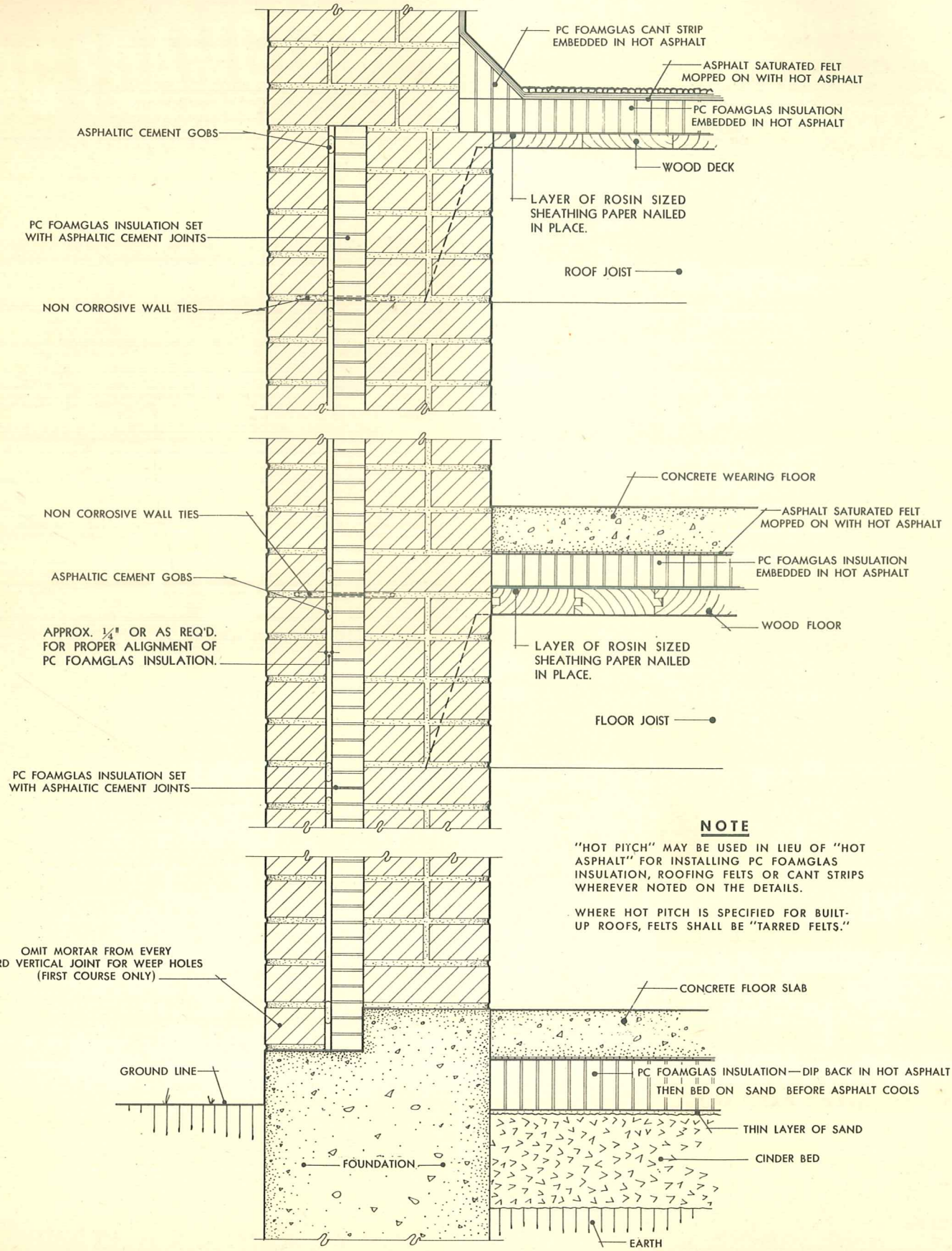
NOTE: Dimensions for all size blocks are subject to a tolerance of 1/16″ plus or minus.

DEW POINT TEMPERATURES FOR VARIOUS AIR TEMPERATURES AND RELATIVE HUMIDITIES



PC Foamglas is listed by Underwriters' Laboratories, Inc., under Label Service, Guide No. 540 IO, January 21, 1948, File R2844.

PC FOAMGLAS INSULATION IN LOAD BEARING TYPE CORE WALL CONSTRUCTION

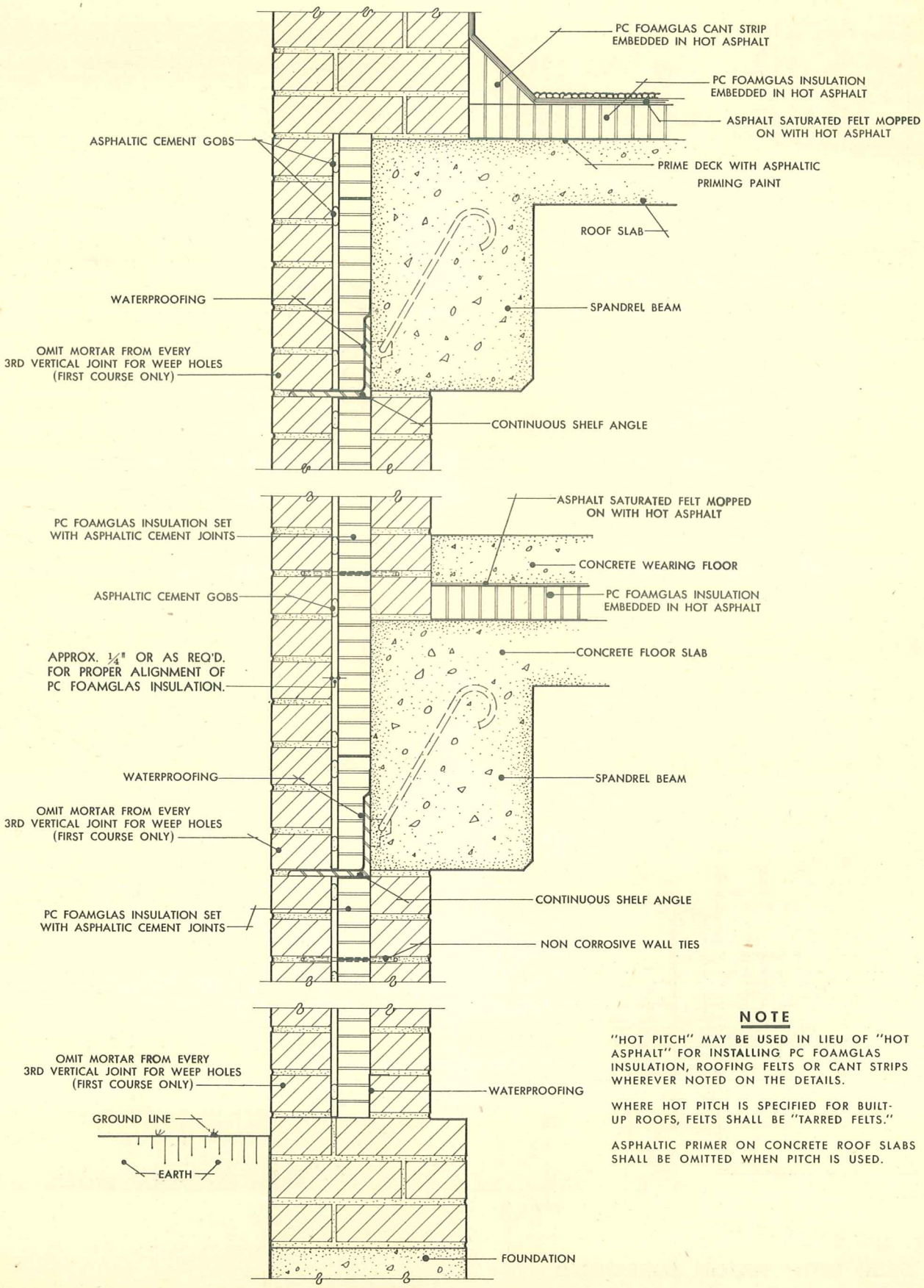


NOTE

"HOT PITCH" MAY BE USED IN LIEU OF "HOT ASPHALT" FOR INSTALLING PC FOAMGLAS INSULATION, ROOFING FELTS OR CANT STRIPS WHEREVER NOTED ON THE DETAILS.

WHERE HOT PITCH IS SPECIFIED FOR BUILT-UP ROOFS, FELTS SHALL BE "TARRED FELTS."

PC FOAMGLAS INSULATION IN PANEL TYPE CORE WALL CONSTRUCTION



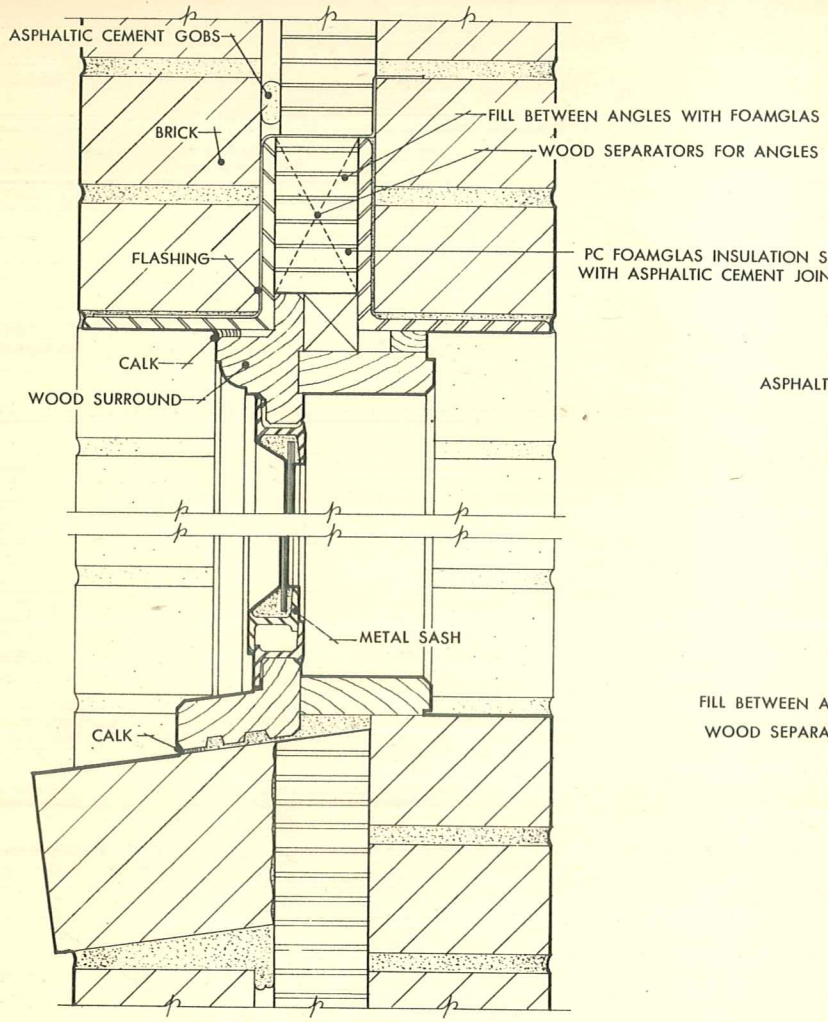
NOTE

"HOT PITCH" MAY BE USED IN LIEU OF "HOT ASPHALT" FOR INSTALLING PC FOAMGLAS INSULATION, ROOFING FELTS OR CANT STRIPS WHEREVER NOTED ON THE DETAILS.

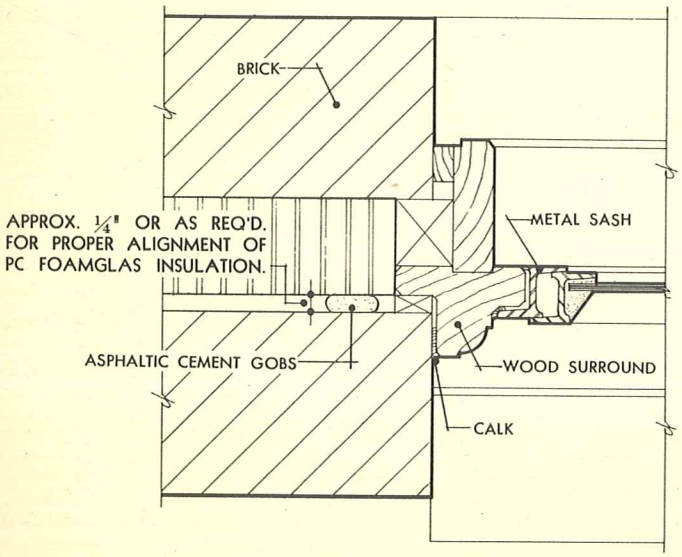
WHERE HOT PITCH IS SPECIFIED FOR BUILT-UP ROOFS, FELTS SHALL BE "TARRED FELTS."

ASPHALTIC PRIMER ON CONCRETE ROOF SLABS SHALL BE OMITTED WHEN PITCH IS USED.

METAL SASH IN CORE WALL CONSTRUCTION

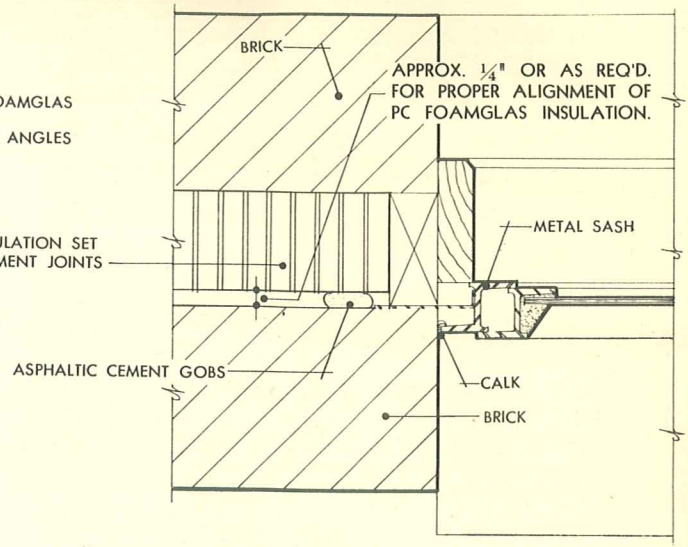


HEAD & SILL DETAIL

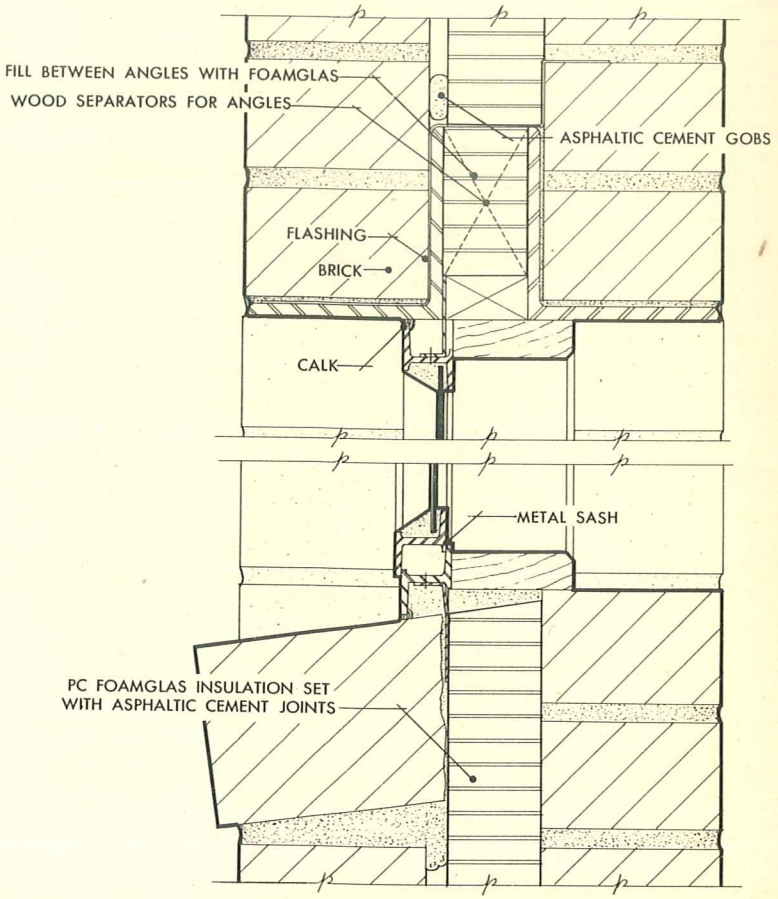


JAMB DETAIL

SASH WITH WOOD SURROUND



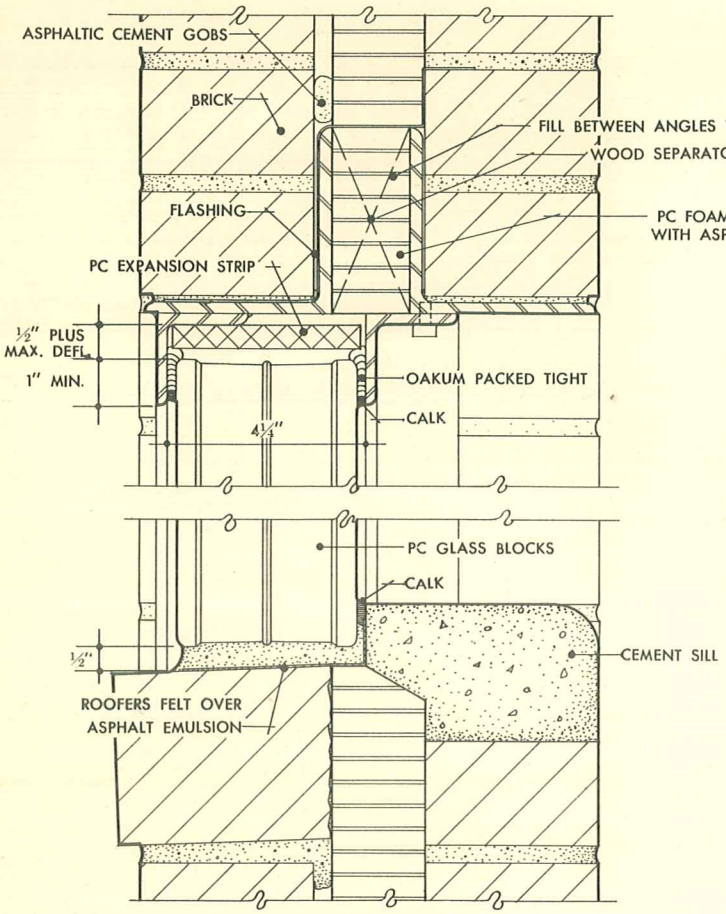
JAMB DETAIL



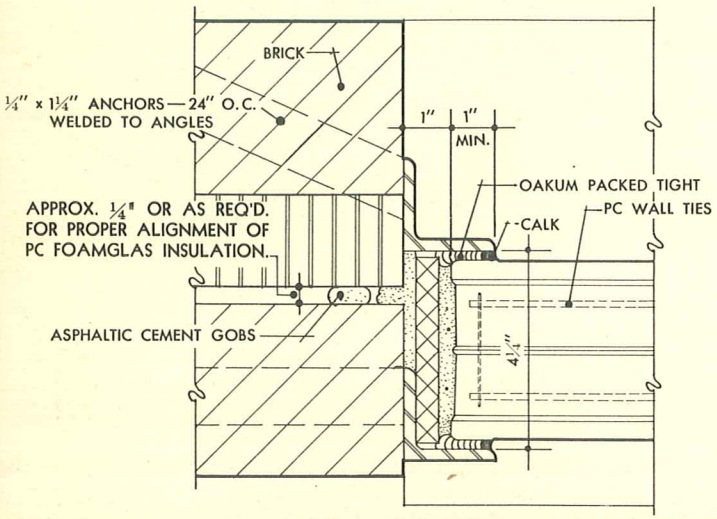
HEAD & SILL DETAIL

SASH WITHOUT WOOD SURROUND

GLASS BLOCK PANELS IN CORE WALL CONSTRUCTION

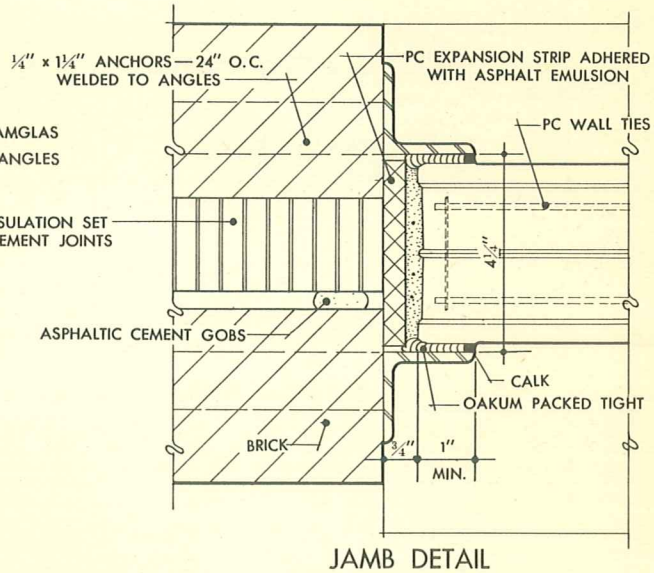


HEAD & SILL DETAIL

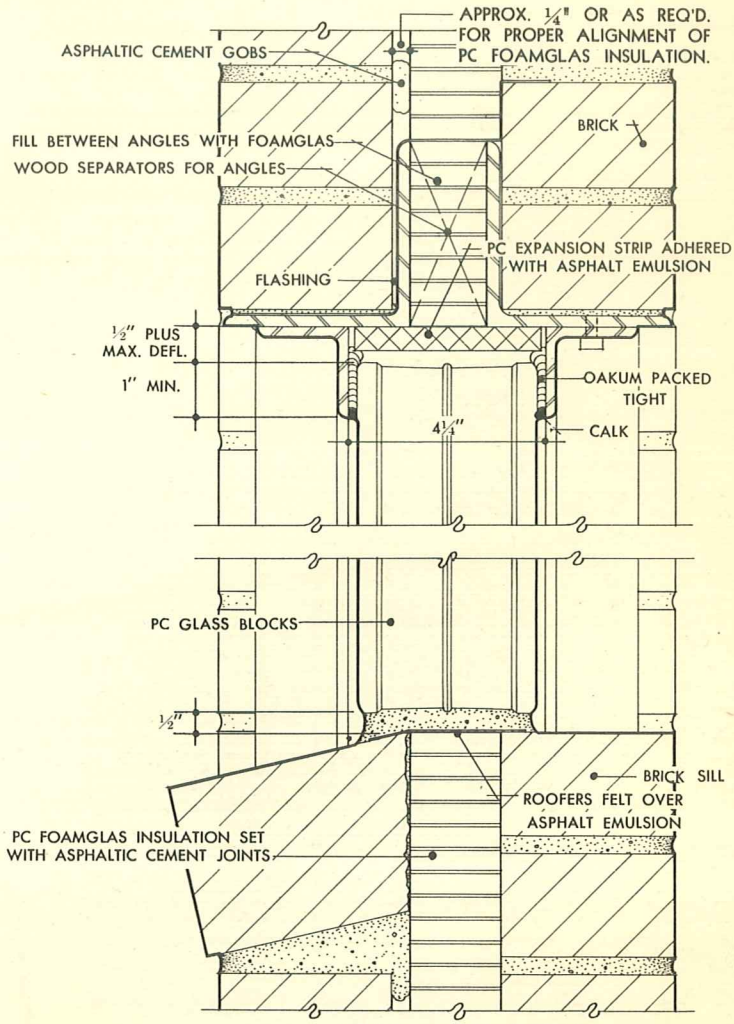


JAMB DETAIL

FLUSH GLASS BLOCK PANEL



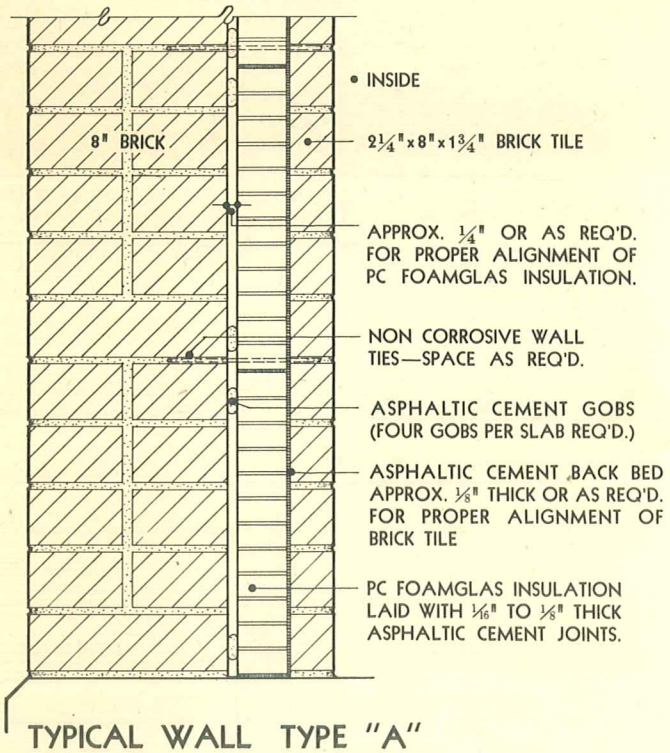
JAMB DETAIL



HEAD & SILL DETAIL

CENTERED GLASS BLOCK PANEL

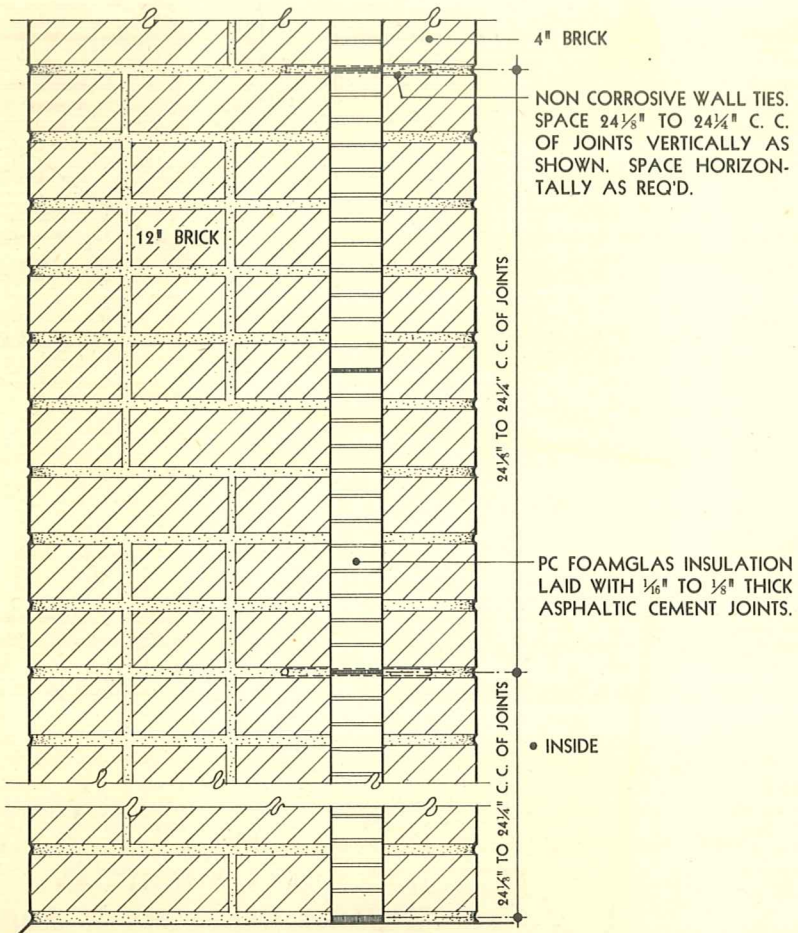
SPECIAL TYPES OF WALL APPLICATIONS



TYPICAL WALL TYPE "A"

• Wall Type "A" varies from other core wall details shown, in that the inner wall is considered a veneer. This veneer wall, having little stability during erection, requires additional bond between it, the Foamglas, and the outer masonry wythe. This additional bond is obtained with the use of asphaltic cement gobs and back bedding as well as wall ties (see detail).

In this type of construction the exterior wall can be erected before the Foamglas and inner veneer are laid, or it may be laid in lifts of approximately 24". This detail is also adaptable for insulating and veneering existing masonry walls. In existing work corrugated wall ties should be used.*



TYPICAL WALL TYPE "B"

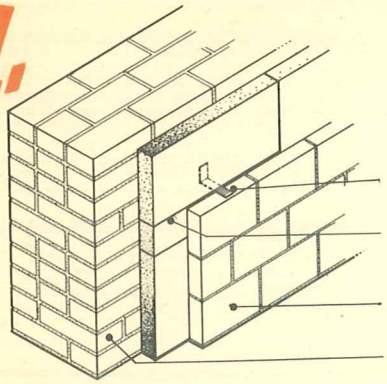
• Wall Type "B" is also different from other core wall details shown. This type of wall incorporates an interior veneer wall with considerable stability. This detail shows no space between Foamglas and masonry walls. This is permissible where the inside surface of the exterior wall can be laid plumb, level and straight, and where the interior wall surface does not necessarily need to be perfectly flush.

For ease of erection, this type wall shall be laid up in lifts of 24⅛" to 24¼" c.c. of joints.*

**See "Specifications" on back of booklet for wall ties, laying of masonry, asphaltic cement mix, and other data pertaining to these special types of wall applications.*

Methods of fitting Wall Ties in PC FOAMGLAS INSULATED Core Wall Construction

1.



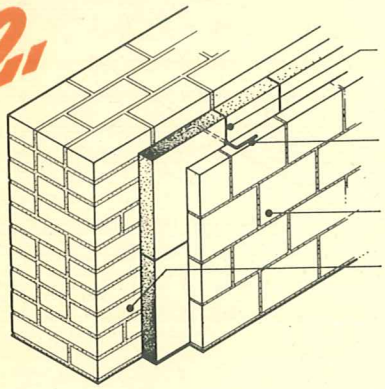
CORRUGATED OR RIBBED TYPE WALL TIES. SPACE AS REQUIRED.

CUT PC FOAMGLAS INSULATION SLAB AT WALL TIE LEVEL AS SHOWN AND SET AS TWO INDIVIDUAL UNITS.

GLAZED TILE OR OTHER MASONRY VENEER.

EXISTING MASONRY WALL OR NEW WALL IN PLACE BEFORE INSULATION & MASONRY VENEER ARE LAID.

2.



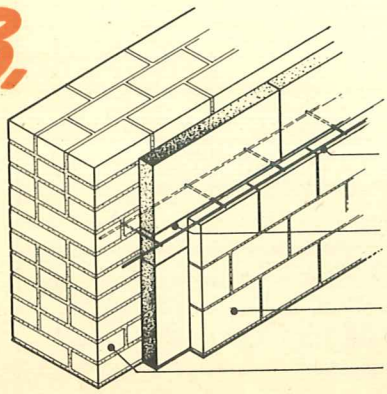
CUT PC FOAMGLAS INSULATION SLAB IN VERTICAL LINE WITH WALL TIE AS SHOWN AND SET AS TWO INDIVIDUAL UNITS.

"Z" TYPE WALL TIES. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

GLAZED TILE OR OTHER MASONRY VENEER.

MASONRY WALL IN PLACE BEFORE INSULATION & MASONRY VENEER ARE LAID.

3.



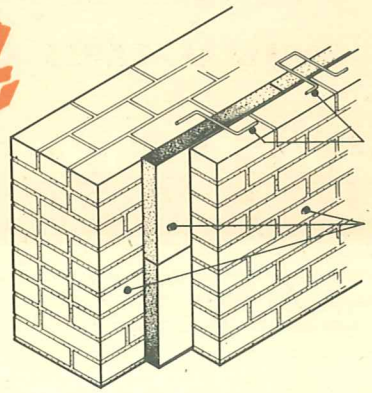
CONTINUOUS WIRE MESH WALL TIES. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

CUT PC FOAMGLAS INSULATION SLABS AT WALL TIE LEVEL AS SHOWN AND SET AS TWO INDIVIDUAL COURSES.

GLAZED TILE OR OTHER MASONRY VENEER.

MASONRY WALL IN PLACE BEFORE INSULATION & MASONRY VENEER ARE LAID.

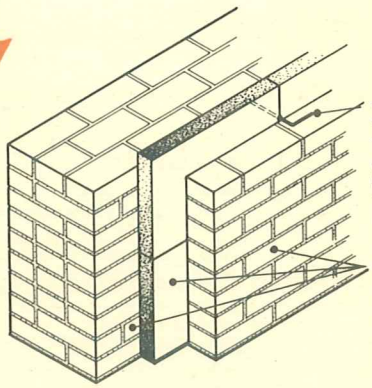
4.



"Z" OR "U" TYPE WALL TIES. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

RAISE EXTERIOR BRICK WALL, PC FOAMGLAS INSULATION AND INTERIOR BRICK WALL IN LIFTS OF 24⅛" TO 24¼" C. C. OF JOINTS.

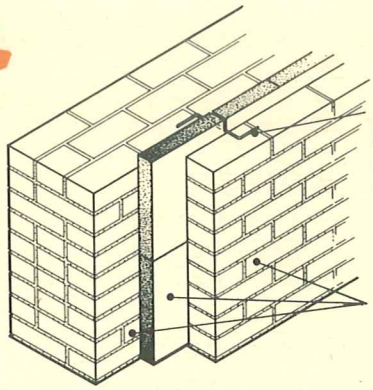
5.



"Z" TYPE WALL TIES. SPACE WALL TIES 36⅛" TO 36¼" C. C. HORIZONTALLY SO THAT THEY WILL OCCUR IN ALTERNATE VERTICAL JOINTS OF PC FOAMGLAS INSULATION SLABS. SPACE VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

EXTERIOR & INTERIOR MASONRY WALL SHALL BE LAID IN LIFTS OF AS NEAR 24⅛" TO 24¼" C. C. OF JOINTS AS IS PRACTICABLE.

6.



"Z" TYPE WALL TIES NEAR TOP OR BOTTOM OF PC FOAMGLAS INSULATION SLAB MAY BE SET IN GROOVE AS SHOWN AND SEALED WITH SAME MATERIAL USED FOR FOAMGLAS JOINTS. GROOVE DEPTH SHOULD NOT EXCEED 1¼". SPACE WALL TIES VERTICALLY IN MATCHED MASONRY MORTAR JOINTS AS SHOWN.

EXTERIOR MASONRY WALL, PC FOAMGLAS INSULATION AND INTERIOR MASONRY WALL SHALL BE LAID IN LIFTS OF APPROXIMATELY 2 FEET.

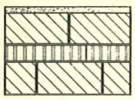
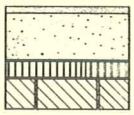
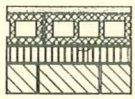
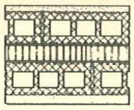
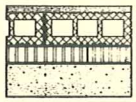
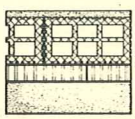
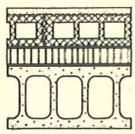
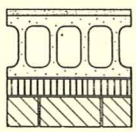
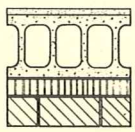
GENERAL NOTES

- Specifications for wall ties and spacing of same vary with building locale and local building code requirements.
- PC Foamglas insulation readily adapts itself to these varying conditions because it is easy to cut and shape. It can be cut with a cheap saw, a roofer's knife or a mason's trowel.
- These details show several methods of fitting Foamglas slabs to various types of wall ties and wall tie spacing. Any one or a combination of these methods can be used.
- Building codes, in general, require one wall tie for a given area of wall surface. In order to avoid confliction with the individual building code requirements, the actual dimensions for wall tie spacing have been omitted from the details wherever possible.
- All joints created in fitting the insulation around wall ties shall be filled with the same material used in the joints of the whole Foamglas slabs.

HEAT TRANSMISSION (U) THROUGH

(U) VALUES ARE EXPRESSED IN B. T. U. PER. SQ. FT. PER DEG. FAHR. TEMP. DIFFERENCE PER HOUR. CONDITIONS ASSUMED: MEAN TEMP. 50 DEG. FAHR. STILL AIR INSIDE & 15 M. P. H. WIND VELOCITY OUTSIDE.

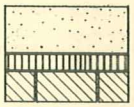
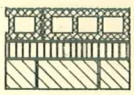
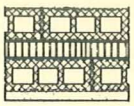
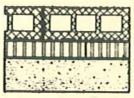
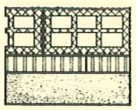
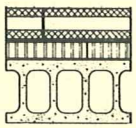
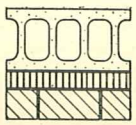
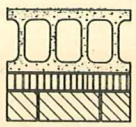
CORE WALLS WITH ¾" PLASTER FINISH

WALL TYPE	CONSTRUCTION	IDENTITY	INSULATED WITH FOAMGLAS 2"	3"	4"	5"	6"
BRICK							
4" FACE BRICK & 4" COMMON BRICK		A-1	.14	.10	.082	.068	.058
4" FACE BRICK & 8" COMMON BRICK		B-1	.12	.095	.077	.065	.056
4" FACE BRICK & 12" COMMON BRICK		C-1	.11	.088	.072	.061	.053
BRICK & CONCRETE							
4" FACE BRICK & 6" CONCRETE		D-1	.14	.11	.084	.069	.059
4" FACE BRICK & 10" CONCRETE		E-1	.14	.10	.082	.068	.058
4" FACE BRICK & 16" CONCRETE		F-1	.13	.10	.079	.066	.056
BRICK & HOLLOW TILE							
4" FACE BRICK & 4" HOLLOW TILE		G-1	.13	.10	.080	.068	.057
4" FACE BRICK & 6" HOLLOW TILE		H-1	.12	.094	.076	.064	.055
4" FACE BRICK & 8" HOLLOW TILE		J-1	.12	.094	.076	.064	.055
4" FACE BRICK & 10" HOLLOW TILE		K-1	.12	.094	.076	.064	.055
HOLLOW TILE & STUCCO							
4" HOLLOW TILE, 4" HOLLOW TILE & 1" STUCCO		L-1	.12	.094	.076	.064	.055
4" HOLLOW TILE, 6" HOLLOW TILE & 1" STUCCO		M-1	.12	.090	.073	.063	.054
4" HOLLOW TILE, 8" HOLLOW TILE & 1" STUCCO		N-1	.11	.089	.073	.062	.053
CONCRETE & HOLLOW TILE							
4" CONCRETE & 4" HOLLOW TILE		O-1	.14	.10	.081	.067	.058
4" CONCRETE & 6" HOLLOW TILE		P-1	.13	.096	.078	.065	.056
4" CONCRETE & 8" HOLLOW TILE		Q-1	.13	.095	.077	.065	.056
STONE & HOLLOW TILE							
4" STONE & 6" HOLLOW TILE		R-1	.13	.096	.078	.065	.056
4" STONE & 8" HOLLOW TILE		S-1	.13	.095	.077	.065	.056
4" STONE & 10" HOLLOW TILE		T-1	.12	.095	.077	.064	.055
4" STONE & 12" HOLLOW TILE		U-1	.11	.088	.072	.061	.053
CONCRETE BLOCK & HOLLOW TILE							
8" CONCRETE BLOCKS & 4" HOLLOW TILE		V-1	.12	.095	.077	.064	.055
8" CONCRETE BLOCKS & 6" HOLLOW TILE		W-1	.12	.090	.074	.062	.054
8" CONCRETE BLOCKS & 8" HOLLOW TILE		X-1	.12	.089	.073	.062	.054
BRICK & CINDER BLOCK							
4" FACE BRICK & 8" CINDER BLOCKS		Y-1	.12	.094	.076	.064	.055
4" FACE BRICK & 12" CINDER BLOCKS		AB-1	.12	.092	.075	.063	.055
BRICK & CONCRETE BLOCK							
4" FACE BRICK & 8" CONCRETE BLOCKS		AC-1	.13	.10	.080	.068	.057
4" FACE BRICK & 12" CONCRETE BLOCKS		AE-1	.13	.098	.079	.066	.057

VARIOUS TYPES OF CORE WALLS

(U) VALUES ARE EXPRESSED IN B. T. U. PER. SQ. FT. PER DEG. FAHR. TEMP. DIFFERENCE PER HOUR. CONDITIONS ASSUMED: MEAN TEMP. 50 DEG. FAHR. STILL AIR INSIDE & 15 M. P. H. WIND VELOCITY OUTSIDE.

CORE WALLS WITH NO INTERIOR FINISH

WALL TYPE	CONSTRUCTION	IDENTITY	INSULATED WITH FOAMGLAS				
			2"	3"	4"	5"	6"
BRICK							
4" FACE BRICK & 4" COMMON BRICK		A	.14	.11	.083	.069	.059
4" FACE BRICK & 8" COMMON BRICK		B	.13	.097	.078	.065	.056
4" FACE BRICK & 12" COMMON BRICK		C	.12	.090	.074	.062	.054
BRICK & CONCRETE							
4" FACE BRICK & 6" CONCRETE		D	.15	.11	.086	.070	.060
4" FACE BRICK & 10" CONCRETE		E	.14	.11	.083	.069	.059
4" FACE BRICK & 16" CONCRETE		F	.13	.10	.080	.067	.057
BRICK & HOLLOW TILE							
4" FACE BRICK & 4" HOLLOW TILE		G	.14	.10	.082	.068	.058
4" FACE BRICK & 6" HOLLOW TILE		H	.13	.097	.078	.065	.056
4" FACE BRICK & 8" HOLLOW TILE		J	.13	.096	.077	.065	.056
4" FACE BRICK & 10" HOLLOW TILE		K	.13	.096	.077	.065	.056
HOLLOW TILE & STUCCO							
4" HOLLOW TILE, 4" HOLLOW TILE & 1" STUCCO		L	.13	.097	.078	.065	.056
4" HOLLOW TILE, 6" HOLLOW TILE & 1" STUCCO		M	.12	.091	.074	.063	.054
4" HOLLOW TILE, 8" HOLLOW TILE & 1" STUCCO		N	.12	.091	.074	.062	.054
CONCRETE & HOLLOW TILE							
4" CONCRETE & 4" HOLLOW TILE		O	.14	.10	.083	.068	.058
4" CONCRETE & 6" HOLLOW TILE		P	.13	.098	.079	.066	.057
4" CONCRETE & 8" HOLLOW TILE		Q	.13	.097	.078	.065	.056
STONE & HOLLOW TILE							
4" STONE & 6" HOLLOW TILE		R	.13	.098	.079	.066	.057
4" STONE & 8" HOLLOW TILE		S	.13	.097	.078	.065	.056
4" STONE & 10" HOLLOW TILE		T	.13	.097	.078	.065	.056
4" STONE & 12" HOLLOW TILE		U	.12	.090	.074	.062	.054
CONCRETE BLOCK & HOLLOW TILE							
8" CONCRETE BLOCKS & 4" GLAZED TILE		V	.13	.097	.078	.065	.056
8" CONCRETE BLOCKS & 6" GLAZED TILE		W	.12	.092	.075	.063	.054
8" CONCRETE BLOCKS & 8" GLAZED TILE		X	.12	.091	.074	.063	.054
BRICK & CINDER BLOCK							
4" FACE BRICK & 8" CINDER BLOCKS		Y	.13	.097	.078	.065	.056
4" FACE BRICK & 12" CINDER BLOCKS		AB	.12	.094	.076	.064	.055
BRICK & CONCRETE BLOCK							
4" FACE BRICK & 8" CONCRETE BLOCKS		AC	.14	.10	.082	.068	.058
4" FACE BRICK & 12" CONCRETE BLOCKS		AE	.13	.10	.080	.067	.057

PC FOAMGLAS CORE WALL INSULATION *Specifications*

Specifications and details shown in this Folder are for use in Normal Temperature Applications, 50° to 120° F. Where Temperatures over 120° F. are to be maintained, write us for special application specifications.

INSULATION:

Shall be PC Foamglas Insulation as manufactured by the Pittsburgh Corning Corporation in standard slabs 12″ x 18″ and shall be.....inches thick (2″, 3″, 4″ or 5″).

MASONRY WORK:

All masonry work for core walls shall be laid plumb, level, straight, true to dimensions, and shall be laid with full mortar joints. Joints on the inside surface of the masonry walls shall be "plain cut." These surfaces shall also be free of any stray mortar. Masonry work and PC Foamglas Insulation shall be erected with the following procedure:—First, lay a lift of the exterior wythe. Second, lay a lift of the Foamglas. Third, lay a lift of the interior wythe. The height of one lift shall be equal to the vertical distance between wall ties.

WALL TIES:

Shall be of non-corrosive metal and shall be ..... type. (Insert wall tie specification here).
One wall tie shall be required for every ..... sq. ft. (or, sq. in.) of wall surface. Wall ties shall be spaced every ..... course (or ..... inches apart vertically), and every ..... inches apart horizontally.

ASPHALTIC CEMENT:

Shall be of the following mix, measured by volume:

6 parts PC Asphalt Emulsion
1 part Portland cement

Make a paste of the Portland cement and water, and then add the asphalt emulsion. Mix thoroughly, increasing the water content sufficiently to make mix workable under trowel. Batch size shall be such that can be used within one hour of mixing. All asphaltic cement not used within this time shall be discarded and no retempering shall be permitted. Asphaltic cement shall not be applied when temperature is below 40° F.

LAYING INSULATION:

PC Foamglas Insulation shall be laid plumb, level, and true to dimensions. The insulation shall be laid with asphaltic cement joints. Joints shall finish 1/16″ to 1/8″ thick. When laying slabs apply only enough pressure to guarantee good, full joints. To assure tight joints, point joints with asphalt cement after slabs are set. Do not disturb previously placed slabs. Where slabs are disturbed, remove same and reset with fresh asphaltic cement. Where it is necessary to cut or fabricate the Foamglas to fit the spacing of wall ties, openings, etc., all joints including the wall tie joints shall be sealed with asphaltic cement.

For proper alignment of Foamglas slabs, asphaltic cement gobs shall be used between the interior surface of the outside wythe and the insulation. (See details). The space between exterior wythe and the insulation shall be 1/4″ or as may be required for proper alignment of Foamglas. Four gobs per slab shall be required. Apply only enough lateral pressure against the Foamglas to permit absolute contact between gobs and the exterior wythe.

NOTE: Cement and gypsum plasters, or other materials which shrink in setting, cannot be applied directly to Foamglas. Therefore, as recommended in this catalog, tile or masonry veneer shall be used as interior finish over this insulation.

PC FOAMGLAS FOR CORE WALL INSULATION

T. M. REG. U. S. PAT. OFF.

Manufactured by

PITTSBURGH CORNING CORPORATION • 632 DUQUESNE WAY • PITTSBURGH 22, PA.

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